106

CREATING A VALID AND RELIABLE BMT INPATIENT ACUITY TOOL THAT REFLECTS CURRENT BMT NURSING PRACTICE AND WORKLOAD

Thirlwell, S., Rees, L., Beaupierre, A., Gillespie, M. Moffitt Cancer Center, Tampa, FL

Blood and marrow transplant (BMT) is a complex treatment modality. Managers are challenged to determine appropriate staffing to ensure safe, effective and efficient BMT nursing care. Tools to assess patient acuity can assist managers to meet this staffing challenge. An effective acuity tool reflects the complex and unique aspects of patient care and of the location where it will be used. Since 1993, the BMT unit of our NCI-designated Cancer Center has used the Bone Marrow Transplant Acuity Tool of Lovett and McMillan. Given the tremendous changes in BMT care delivery, the Bone Marrow Transplant Acuity Tool no longer reflects our present BMT nursing, especially the care of the critically ill who remain on our unit instead of being transferred to an intensive care unit. Challenges arose in communication and justification of our staffing ratios as the tool failed to measure patient care requirements, quantify nursing workload, assist with allocation of staff or coordinate patient care delivery. BMT Nursing Leadership recognized the need to revise the BMT-specific tool and create a new tool that is valid and reliable for our present BMT care.

An ad hoc inpatient BMT Acuity Team was formed by the Patient Care Manager (PCM) and included the clinical nurse specialist (CNS) and experienced nurses. The Acuity Team followed the Lynn Method to determine and quantify content validity (1986). Beginning from the Bone Marrow Transplant Acuity Tool of 5 acuity-levels including 49 indicators, members of the Acuity Team completed 4 rounds of an independent review to identify 40 indicators with content validity established at a significance of $p > .05$. The team met to quantify time of care associated with each indicator and identified 5 acuity categories, differing in hours of care from the original tool. Interrater reliability was established using two independent raters for 239 patients was high ($r = 0.94$, $p < 0.001$). The 2009 BMT Inpatient Acuity Tool is now in use on the BMT unit and plans are underway to convert the tool to an electronic format. It has assisted the PCM and Clinical Leaders to communicate staffing needs for safe and effective care of BMT patients on our unit. In addition, it has assisted the BMT Nursing Leadership to monitor changes in patient acuity over time as new BMT treatment regimens and supportive care practices have been implemented. The benefits and challenges of implementation of a new acuity tool will be discussed.

107

BEYOND NAUSEA & VOMITING: MONITORING LESS COMMON REACTIONS TO HIGH DOSE BCNU

Kwan, H., Knight, S., Thirlwell, S. Moffitt Cancer Center, Tampa, FL

High dose carmustine (BCNU) is the first chemotherapy agent administered as part of the conditioning regimen BEAM +/- R for autologous blood and marrow transplantation (BMT) for lymphoma. Nausea and vomiting are common adverse drug reactions (ADR) to high dose BCNU and can be effectively controlled by administration of anti-emetics. Less common ADRs such as headache, facial flushing, oral tingling, eye problems, dizziness and allergic reaction have been reported but standard methods of prevention and/or treatment are not known.

The BMT Nursing unit-based Outcomes Management (OM) Committee noticed an increase in less common BCNU ADRs. Nurses expressed frustration that no standing orders were in place to treat these ADRs. Patients' anxiety levels increased as they experienced these effects on their first day of chemotherapy.

The OM Committee performed a retrospective analysis to track the incidence of BCNU ADRs. With the assistance of the Risk Management Department, the OM Committee reviewed safety reports for BCNU submitted from June 2008 to May 2009. See Table 1. Interventions to treat these ADRs varied from slowing the infusion rate to pharmacological intervention. The small number of reactions made it difficult to determine the most effective intervention. The OM Committee felt that safety reports were not submitted for all reactions and thus, did not reflect the true prevalence in our BEAM +/- R patients. When discussed at staff meetings, nurses expressed uncertainty regarding the purpose and process of safety reports. The OM Committee identified the need to prospectively monitor patients receiving BEAM +/- R and submit safety reports for ADRs, as needed. Tools were created to educate about less common BCNU ADRs, to promote formal safety reports and to track patients. Within a month of implementation of new tools, an increase in rate of reporting was noted with 7 out of 18 BEAM +/- R patients reported to have a less common ADR.

The OM Committee will continue to monitor patients receiving BEAM +/- R for six months and to collect data related to less common ADRs and interventions. Upon analysis of the data, results will be presented to BMT Clinical Leadership to create standard orders and information regarding the prevalence and treatment of less common ADRs will be incorporated into education of patients receiving BEAM +/- R. In addition, knowledge gained from this project will be shared with other BMT centers.

Table 1. Reported BCNU ADRs from June 2008 to May 2009

	N	%
BEAM +/- Patients	93	–
BEAM +/- Patients with ADRs	11	12 %
Eye problems	6	6.5 %
Jaw, tongue, speech changes	6	6.5 %
Nasal changes	5	5.4%
Tinnitus	1	1.1 %
Pruritus	1	1.1 %
Headache	1	1.1 %
Chills & rigors	1	1.1 %
Anaphylaxis	1	1.1 %

108

MOTIVATED AND MOVING: A MULTIDISCIPLINARY INITIATIVE TO INCREASE PATIENT PARTICIPATION IN PHYSICAL ACTIVITY

Tomczak, N.D.[1], Faltus, K.J.[1], Neumann, J.L.[1], Morris, G.S.[2] [1]The University of Texas M.D. Anderson Cancer Center, Houston, TX; [2]The University of Texas M.D. Anderson Cancer Center, Houston, TX

Prolonged length of stay, in addition to disease and treatment related complications, can contribute to deconditioning in the Stem Cell Transplantation (SCT) patient population. A multidisciplinary group was formed to explore ways to encourage SCT patients to increase their physical activity level while in the hospital. The result was the Motivated & Moving (M&M) Program – an incentive based program focusing on motivating patients to participate in physical activity outside of their hospital room.

The program, developed by nurses and physical and occupational therapists, employed a progressive rewards system, which acknowledged SCT patients for participating in activities outside of their hospital room such as ambulation, attendance at exercise class, or work with the physical or occupational therapist. Patients were rewarded with a paper circle (m&ms) for each activity performed outside their room. After accumulating 15 m&m points, patients then received a colored bandana and pennant to recognize completion of this level of achievement. A maximum of four such levels of achievement were possible.

Implementation of this program in the SCT patient population has proven to increase motivation for and participation in physical activity while in the hospital. The program was evaluated through a post-participation survey which revealed: 95% felt motivated to participate in physical activity; 97% stated that physical activity was important to the success of their transplant; 66% stated that their fatigue was moderately to significantly improved; and 82% stated that they felt better able to perform ADLs. In addition to patient satisfaction, the program also fostered a greater sense of community on the transplant unit among the patients, caregivers, and clinical staff. The program also increased nursing encouragement of patient participation in physical activity.

This program has the potential for bringing out subjective and objective improvements in the quality of life and clinical outcomes of HSCT patients.